

## REMARKS

The Office Action of December 18, 2003 has been received and its contents carefully noted. In response, the application has been revised in a manner summarized below.

### Revisions to the application

The present Amendment includes a Request for Approval of Drawing Changes to Figure 1, as shown on a copy of Figure 1 attached to this Amendment. These changes modify how some of the reference numbers are presented and revise how one laser diode symbol is presented in order to conform it to the rest. More importantly, the proposed drawing changes delete text that appears near element 5.

The present Amendment also revises several paragraphs in the specification. Several of these revisions correct inadvertent informalities. However, two paragraphs have been revised on page 6 for a different reason. One of these paragraphs has been amended to include a new sentence derived from the text that has been deleted from Figure 1. Terminology that is now used in the claims ("differential signals") has been introduced into the other paragraph on page 6 that is being revised. Although the application as-filed did not specifically mention differential signals, an ordinarily skilled person would have appreciated (from the paragraph bridging pages 7 and 8, for example) that the application's discussion of the "common mode" referred to such signals.

The present Amendment also places objected-to claim 3 in independent form. In doing so, the "transmitting" step imported from claim 1 has been revised in order to provide an improved antecedent basis for the "external data signals" in claim 3.

Finally, the present Amendment also revises claim 1 in several respects. Claim 1 now provides that the transmitter has “a plurality” of channels, and that the external data signals are “differential data signals.” In addition, the “transmitting” step has been revised to provide an improved antecedent basis for subsequent recitations.

The rejections on the prior art

Section 2 of the Office Action rejects claims 1 and 2 for anticipation by Kuchta et al, and section 3 rejects them for anticipation by Yoshida et al. For the sake of brevity, these references will hereafter be called simply “Kuchta” and “Yoshida.” For the reasons discussed below, however, it is respectfully submitted that the current version of claim 1 is patentable over both of these references.

Section 2 of the Office Action comments that Kuchta discloses a method for testing each channel in an N-channel parallel optical communication transmitter. In Kuchta, however, N is 1, and claim 1 now recites “a plurality of parallel channels.”

Section 2 also appears to characterize the signal from Kuchta’s element 29 to his multiplexer 21 as the “test signals” of claim 1. However, the output from Kuchta’s element 29 controls the selection made by Kuchta’s multiplexer 21, so identifying the output of Kuchta’s element 29 as the “test signals” of claim 1 is inconsistent with the “selecting” step of the claim.

Section 2 of the Office Action also takes the position that Kuchta’s photodiode 32 detects whether external data signals have a valid common mode voltage level. The trouble with this analysis is that an ordinarily skilled person who had read the Kuchta reference would probably think that Kuchta’s external data signals are simply serial,

binary signals that are carried by a single conductor. There would be no reason for an ordinarily skilled person to think that a "common mode voltage level" would be a characteristic of such signals.

Claim 1 has been amended to recite that the external data signals are "differential data signals." Since the concept of an "open mode" is applicable to such signals, there is now no justification whatsoever in identifying Kuchta's photodiode 32 as an element that detects whether Kuchta's external data signals include data signals having a valid common mode voltage level.

Turning now to section 4 of the Office Action, the Yoshida reference also discloses a single-channel transmitter. Section 3 of the Office Action takes the position that Yoshida's photodiode 5 detects whether external data signals include data signals having a valid common mode voltage level. However, nothing in the Yoshida reference would have led an ordinarily skilled person to suspect that Yoshida uses differential signals for his data, and clearly nothing in the reference would suggest that Yoshida's photodiode 5 has a function of determining whether differential signals include data signals having a valid common mode voltage level.

For the reasons discussed above, it is respectfully submitted that the present formulation of claim 1 is neither anticipated by Kuchta or Yoshida, nor rendered obvious by these references. Claim 2 depends from claim 1 and recites additional limitations to further define the invention, so it is patentable along with claim 1 and need not be further discussed.

Conclusion

For the foregoing reasons, it is respectfully submitted that the application is now in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,

  
\_\_\_\_\_  
Allen Wood  
Registration No. 28,134  
Customer No. 23995  
(202) 371-8976  
(202) 408-0924 (facsimile)

AW:rw



FIG. 1

~~100~~ → 100

